

WHAT IS CLAIMED IS

1. Apparatus for applying compressions to the chest of a patient to stimulate blood circulation, comprising:

an energizable compressor assembly which includes an actuator that is energized by pressured fluid and that has a pressing member that is pushed against the patient's chest;

a torso wrap that couples to said actuator and that wraps to the back of the patient, so downward forces of the piston against the patient's chest are withstood by upward forces applied to the patient's back;

said compressor assembly including a pressured fluid source, an elongated flexible hose with an inner end coupled to said fluid source and an outer end coupled to said actuator, and a control assembly with a controlled valve that connects said pressure source to said hose in pulses that travel through said hose and cause said piston to be depressed in pulses, to thereby minimize the volume and weight of the combination of torso wrap and actuator carried by the torso wrap.

2. The apparatus described in claim 1 wherein:

said actuator includes a cylinder and a piston, with said piston including a plurality of telescoping piston parts including a first piston part that fits closely in said cylinder and a second piston part that fits closely in said first piston part.

3. The apparatus described in claim 1 wherein:

said apparatus is constructed to increase the pressure of fluid at a first rapid rate in said actuator and then decrease the pressure in said actuator at a

second rate that is less than half said first rate.

4. The apparatus described in claim 1 wherein said actuator has a vertical axis, and including:

a stabilizer that includes a plurality of leg portions that each has an inner end connected to said actuator and an outer end that is positioned to press against the front of the patient, with said outer ends spaced about said axis to minimize tilt of the actuator vertical axis.

5. The apparatus described in claim 1 wherein:

said actuator has laterally opposite sides, and said torso wrap includes an eyelet coupled to a first of said actuator sides and a band coupled to the other of said actuator sides, with said band having an end portion with an end part that is threadable through said eyelet and with said belt end portion having a pair of Velcro pads that attach the end part to the rest of said belt end portion.

6. Apparatus for applying compressions to the chest of a patient to stimulate blood circulation, comprising:

an energizable compressor assembly which includes an actuator with a cylinder and a piston, and a source of pressured fluid;

a torso wrap that couples to said actuator and that wraps to the back of the patient, so downward forces of the piston against the patient's chest are withstood by upward forces applied to the patient's back;

said actuator includes a cylinder coupled to said torso wrap and a plurality of telescoping piston parts including a first piston part that fits closely

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in said cylinder and a second piston part that fits closely in said first piston part, with at least said second piston part exposed to pressured fluid in said cylinder, and including a pressing member on a lower end of said second piston part for pressing against the patient's chest.

7. The apparatus described in claim 6 wherein:

said compressor assembly includes an elongated flexible hose with an inner end coupled to said fluid source and an outer end coupled to said actuator, and a control assembly with a control valve that connects said pressure source to said hose in pulses that travel through said hose to said actuator.

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8. Apparatus for applying compressions to the chest of a patient to stimulate blood circulation, comprising:

an energizable compressor assembly which includes an actuator that has a vertical axis and a pressing member for pressing against the patient;

a torso wrap that couples to said actuator and that wraps to the back of the patient, so downward forces of the pressing member against the patient's chest are withstood by upward forces applied to the patient's back;

a stabilizer that includes a plurality of leg portions that each has an inner end connected to said actuator and an outer end that is positioned to press against the front of the patient, with said outer ends spaced about said axis to minimize tilt of the actuator with respect to the patient's front.

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9. The apparatus described in claim 8 wherein:

said outer ends of said stabilizer leg portions are spaced further from said axis than any part of said pressing member that presses against the

patient's chest.

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10. The apparatus described in claim 8 wherein:

said stabilizer comprises a saucer-shaped element with a center portion fixed to said actuator and a radially outer portion that rests substantially against the patient's chest.

11. A method for establishing chest compression equipment on a patient, comprising:

placing a combination of a torso wrap and a pressured-fluid energized actuator on the patient, with the torso wrap having a portion lying against the back of the patient and with the actuator attached to on the torso wrap and having a piston lying against the front of the patient;

placing a pressured fluid source and control assembly on a floor, and coupling the pressured fluid source and control assembly through a hose to the actuator, whereby to minimize the weight and volume of the combination of torso wrap and actuator that must be placed on the patient.

12. The method described in claim 11 wherein:

said control assembly includes a valve that couples said pressure source to said tube; and including

opening and closing said valve periodically to transmit pressure pulses through said hose, while allowing the escape of the fluid in said actuator at least between the transmittal of pressure pulses.

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